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WHAT IS CLAIMED IS:

1. A composition comprising:

- a monophase aqueous phase comprising a system comprising:
 - water,
 - a water-soluble or water-dispersible polyionic dendritic polymer (a),
 - at least one ionic surfactant (b),
 - optionally a polycationic or polyanionic polymer (c) other than the dendritic polymer, and
 - optionally at least one amphoteric, zwitterionic or neutral surfactant (d),
 - in which:
 - (a) is polycationic, (b) is anionic and (c), if it is present, is polyanionic or polycationic, or
 - (a) is polycationic, (b) is cationic and (c) is present and polyanionic, or
 - (a) is polyanionic, (b) is cationic and (c), if it is present, is polyanionic or polycationic, or
 - (a) is polyanionic, (b) is anionic and (c) is present and polycationic,
 - the monophase aqueous phase becomes two-phase or remains monophase on diluting with water, and
 - optionally solid or liquid particles of water-insoluble organic or inorganic compounds (e).
- 2. The composition as claimed in the preceding claim, characterized in that (a), (b), (c), if it is present, and (d) if it is present, and their amounts are such that the monophase aqueous phase becomes two-phase on diluting with water.

3. The composition as claimed in the either of the preceding claims, characterized in that:
 - the monophase aqueous phase becomes two-phase on diluting with water, and
 - (a) or (c) precipitates when the aqueous phase becomes two-phase on diluting with water.
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4. The composition as claimed in claim, characterized in that the system comprises (c) and in that
 - (a) is polycationic, (b) is anionic and (c) is polycationic, or
 - (a) is polyanionic, (b) is cationic and (c) is polyanionic.
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- 15 5. The composition as claimed in one of the preceding claims, characterized in that it is an aqueous cosmetic composition for the hair and/or the skin intended to be rinsed off.
- 20 6. The composition as claimed in the preceding claim, characterized in that it is a shampoo, a conditioner or a shower gel.
- 25 7. The composition as claimed in one of claims 1 to 4, characterized in that it is a conditioner not intended to be rinsed off.
- 30 8. The composition as claimed in one of claims 1 to 4, characterized in that it is a composition for cleaning and/or treating hard surfaces.
- 35 9. A process for the treatment of a surface comprising the following stages:
 - a) application of a composition as claimed in one of claims 1 to 8, and
 - b) optionally rinsing.
10. The process as claimed in the preceding claim, characterized in that at least one of the

compounds chosen from (a), (b), (c), if it is present, and (e), if it is present, is deposited at the surface.

5 11. The process as claimed in the preceding claim, characterized in that the surface is a hair and/or skin surface.

10 12. The process as claimed in the preceding claim, characterized in that the surface is a hard surface.

15 13. The use of the composition as claimed in one of claims 1 to 7 or of the process as claimed in one of claims 9 to 11 in the conditioning, repair or protection of the hair and/or in the dyeing of the hair.